



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,437	10/15/2001	Jeffrey A. Heroux	2528-8	3932

22852 7590 01/12/2007
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

CHUNDURU, SURYAPRABHA

ART UNIT	PAPER NUMBER
----------	--------------

1637

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/976,437

Applicant(s)

HEROUX ET AL.

Examiner

Suryaprabha Chunduru

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-67, 69, 77-87 and 89 is/are pending in the application.
- 4a) Of the above claim(s) 77-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-67, 69, 81-87, 89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Applicants' response to the office action filed on January 3, 2007 has been entered.

Status of the Application

2. Currently claims 45-67, 69, 81-87, 89 are pending. Claims 1-44, 68, 70-76 and 88 are cancelled. Claims 77-80 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group. All arguments and amendment have been fully considered and thoroughly reviewed and deemed unpersuasive for the reasons that follow. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. This action is made Final.

Response to arguments:

3. with regard to the rejection of claims 45-67, 69, 81-87, 89 under 35 USC 103(a) as being unobvious over Shukla in view of Massey et al., Applicants' arguments are fully considered and found unpersuasive. Applicants argue that the instant claims 45-54, 69, 81-82, 85-87 and 89 are directed to the joining of two substrates and Shukla does not teach an assay for a joining activity. Applicants' arguments are fully considered and found unpersuasive because the instant claims are directed to a method of assaying an enzyme that modifies the rate of joining of two substrates, and the instant claims do not recite that the enzyme joins two substrates, thus the term modifies does not necessarily read on joining two substrates rather it reads on changing or modifying the rate of joining. Thus Shukla does not teach assaying an enzyme that modifies the rate of joining of two substrates. Applicants further argue that Massey et al. teach binding of two

substrates and do not teach joining as required by the instant claims wherein an enzyme is required to join the substrates. Applicants' arguments are fully considered and found unpersuasive because as discussed above, Shukla does teach assaying an enzyme that modifies the rate of joining two substrates and it is obvious to combine or modify the method of Shukla with the luminescent label of Massey et al. to measure the enzyme activity as discussed in the rejection.

Applicants further argue that Massey et al. does not teach luminescent label linked to an electrode because claim 85 requires an electrode to essentially consisting of a metal and claim 89 requires the electrode be not a carbon electrode. Applicants' arguments are fully considered and found unpersuasive. Applicants point out specific claims that do not require a carbon electrode, however the instant dependent claims 65-66 does require electrode comprising elemental carbon, which is taught by Massey et al. In addition, Massey et al. teach magnetically responsive nanotubes, which comprise metal (see col. 13, line 31-55, col. 15, line 10-22) and electrodes comprising silver, gold, platinum, steel (iron) (see col. 23, line 26-67, col. 24, line 1-8). Thus the limitations that the electrode comprises a metal and said metal is not a carbon are taught by Massey et al. Thus the arguments based on said limitation are not persuasive because Massey et al. reference as a whole does teach that said non-carbon electrode, in addition to carbon electrodes (see col. 23, line 26-67).

In response to no suggestion or motivation to combine the references of Shukla and Massey et al. examiner notes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in thereferences themselves or in the

knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, specific motivation is provided in the rejection, which states that One skilled in the art would be motivated to combine the method as taught by Shukla et al. with the chemiluminescent label detection as taught by Massey et al. because Massey et al. explicitly taught that the use of luminescence assays using particles having high surface area for immobilization of assay performance substances to achieve advantageously high light emission (see col. 6, line 24-27). The ordinary artisan would have a reasonable expectation of success that inclusion of said luminescence assay system having high light emission to detect said enzyme activity taught by Shukla et al. would result in increase in the sensitivity of detection of said enzyme and such modification of the method would be obvious over the cited prior art. Therefore the rejection is maintained.

Conclusion

No claims are allowable.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M, Mon - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and - for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Suryaprabha Chunduru
Primary Examiner,
Art Unit 1637

Prabha Chunduru
SURYAPRABHA CHUNDURU
PRIMARY EXAMINER 1/9/07